

KOUSTUBH SHARMA (orcid.org/0000-0001-7301-441X) Snow Leopard Trust, Bishkek, Kyrgyzstan. ALIFERETI TAWAKE (orcid.org/0000-0002-0154-3600) Locally Managed Marine Area Network International Trust, Suva, Fiji. INDIRA DAYANG L. WIDMANN Katala Foundation, Palawan, Philippines. ILENA ZANELLA (orcid.org/0000-0002-3820-7643) Asociación Conservacionista Misión Tiburón, Costa Rica. LU ZHI (orcid.org/0000-0002-1746-4448) Center for Nature and Society, College of Life Sciences, Peking University, Beijing, China

*Also at: Nature Conservation Foundation, Mysore, India
†Also at: Snow Leopard Foundation in Kyrgyzstan, Bishkek, Kyrgyzstan

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Saving the threatened forest fish

Nepal is home to two pangolin species, the Endangered Indian pangolin *Manis crassicaudata* and the Critically Endangered Chinese pangolin *Manis pentadactyla*. Both are threatened by poaching and habitat degradation. The scattered distribution of pangolins often overlaps with human-dominated landscapes, and generally there is limited funding available for pangolin conservation as Nepal's conservation efforts focus on flagship species, such as the tiger and rhinoceros, in protected areas.

In this context, Greenhood Nepal initiated a survey in the Chitwan-Parsa Complex during October 2022–February 2023, to investigate pangolin distribution and public awareness of these species. The Chitwan-Parsa Complex was chosen because it is a secure landscape for globally threatened megafauna and we aimed to examine whether the existing conservation measures could also benefit pangolins.

We visited 13 Buffer Zone User Committees of Parsa National Park and 21 Buffer Zone User Committees of Chitwan National Park, and interviewed Indigenous communities living around the Parks. Our survey revealed that Indigenous communities are unaware of the

conservation status of pangolins and often hunt them for their meat.

The majority of the Indigenous fishing communities described pangolins as fish found in the forest. They call them *sal machha*, which means fish from the *sal Shorea robusta* forest, and *ban machha*, which means forest fish. Many of these communities harvest and eat pangolins, regarding them as just another fish, but from the forest. In earlier research interviewing people convicted for wildlife crimes in Nepal, we encountered the term *sal machha* in conversation with a prisoner from this region (Paudel et al., 2020, *Conservation Science and Practice*, 2, e137). In our current survey, we found this phrase to be common in the vernacular.

Communities living with wildlife, especially rural Indigenous communities, have their own perceptions of species and the role they play in their environment and lived realities. If such communities are not aware that a species is globally threatened, they may also not know that hunting it may be illegal and could result in penalties.

It is imperative to ensure that local communities are aware of the conservation status of pangolins, so that they are not hunted just like a fish in the river. Priority conservation areas for pangolins need to be identified, and park authorities and communities encouraged to incorporate pangolins into their conservation programmes. Creative outreach programmes could lead to improved awareness and behavioural change to help protect pangolins.

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KUMAR PAUDEL* (orcid.org/0000-0002-2041-3596, kumar@greenhood.org), SIDDHANT PANDEY (orcid.org/0000-0002-0692-4007) and SABITRI RAI (orcid.org/0000-0001-5702-1660) Greenhood Nepal, Kathmandu, Nepal

*Also at: IUCN Species Survival Commission Pangolin Specialist Group, Zoological Society London, UK

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A comparison of (a) a Chinese pangolin (photo: Kushal Shrestha) with (b) a fish (photo: Kumar Paudel) harvested by Indigenous communities in Chitwan-Parsa Complex, Nepal, demonstrates why Indigenous fishing communities describe pangolins as *sal machha* (forest fish).